



## 9.12 Borough of Florham Park

This section presents the jurisdictional annex for the Borough of Florham Park.

### 9.12.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Name: Captain Robert Treiber Address: 111 Ridgedale Ave, Florham Park, NJ Phone: 973-410-5383 E-mail: 532@fppd.net	Name: Sergeant Scott Bartell Address: 111 Ridgedale Ave, Florham Park, NJ Phone: 973-410-5441 E-mail: 546@fppd.net

### 9.12.2 Municipal Profile

The Borough of Florham Park is a small suburban municipality located in southeastern Morris County. The Borough is bordered to the south by the Boroughs of Madison and Chatham, to the north by the Townships of Hanover and East Hanover, to the west by Morris Township, and to the east by the Passaic River. The Borough is 7.6 square miles in size and has a population of 11,696 according to the 2010 U.S. Census.

The Borough is a residential community with housing subdivisions radiating from a centrally located shopping district. The Borough contains a large engineering research center, several light industries and two colleges. Bodies of water in the Borough include the Passaic River, Spring Garden Brook, Black Brook, Hassock Brook, and Pinch Brook (FEMA FIS 2010).

### Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality.

**Table 9.12-1. Growth and Development**

Property or Development Name	Type (e.g., Res., Comm.)	# of Units/Structures	Location (address and/or Block & Lot)	Known Hazard Zone(s)	Description/Status of Development
<b>Recent Development from 2010 to present</b>					
The Green	Commercial/Residential	425 residential structures, 830K square feet of commercial	180 Park Ave	NEHRP: D	In progress, 240 acres of commercial offices and residential housing
Sun Valley Apartments	Expansion of existing Rental Apartment Complex	111 Units added in 2013	61 Passaic Ave.	NEHRP: D	Recently Completed
<b>Known or Anticipated Development in the Next Five Years</b>					
Sun Valley Apartments	Rental Apartments	Unknown	71 Passaic Ave.	NEHRP: D	Concept Review presented

*\* Only location-specific hazard zones or vulnerabilities identified.*



### 9.12.3 Natural Hazard Event History Specific to the Municipality

Morris County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

**Table 9.12-2. Hazard Event History**

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
March 12 – April 15, 2010	Severe Storms and Flooding	DR-1897	Yes	Flooding issues Columbia Turnpike, Brooklake Road, Fire Department pumped out flooded basement of homes and businesses. Police and DPW overtime costs in excess of \$19,000
December 26-27, 2010	Severe Winter Storm and Snowstorm	DR-1954	Yes	DPW and Police overtime sanding and salting roadways. Labor, equipment and material exceeded \$54,000
August 26 – September 5, 2011	Hurricane Irene	EM-3332 DR-4021	Yes Yes	Flooding of Municipal Complex and Recreation Building at 111 Ridgedale; additional flooding at Columbia Turnpike, Brooklake Road, East Madison. Roadway closings, and debris removal required Police and DPW overtime. Generators were needed to run the sewage station and well facility. Labor costs for this event exceeded \$22,000
October 29, 2011	Severe Storm	DR-4048	Yes	Flooding of roadways included Columbia Turnpike, East Madison, and Brooklake. Debris on roadways limiting access. Roadways were barricaded. Labor costs for this event exceeded \$19,000
October 26 – November 8, 2012	Hurricane Sandy	EM-3354 DR-4086	Yes Yes	Downed trees and electrical wires blocking streets. Warming and charging station were open for one week. Manual direction of traffic was required where signals failed due to loss of power. Portable generators used at critical facilities. Gas station security provided by PD. Additional resources required for public health and safety. Costs for this event exceeded \$177,000.

### 9.12.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Borough of Florham Park. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

#### Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Borough of Florham Park.



**Table 9.12-3. Hazard Risk/Vulnerability Risk Ranking**

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c</sup>	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking <sup>b</sup>
Drought	Damage estimate not available	Frequent	27	Medium
Dam Failure	Damage estimate not available	Rare	6	Low
Earthquake	500-year MRP: \$5,446,065 2,500-year MRP: \$90,347,996	Occasional	32	High
Extreme Temperature	Damage estimate not available	Frequent	27	Medium
Flood	1% Annual Chance: \$7,394,717	Frequent	27	Medium
Geological Hazards	Exposed to Class A and Class B: \$24,224,731	Occasional	12	Low
Severe Storm	100-Year MRP: \$3,769,458 500-year MRP: \$15,894,125 Annualized: \$232,661	Frequent	48	High
Winter Storm	1% GBS: \$39,918,433 5% GBS: \$199,592,163	Frequent	54	High
Wildfire	Estimated Value Exposed to Extreme, Very High and High: \$25,246,809	Rare	6	Low
Disease Outbreak	Damage estimate not available	Frequent	36	High
Hazardous Materials	Damage estimate not available	Frequent	36	High
Infestation	Damage estimate not available	Frequent	18	Medium

Notes:

- Building damage ratio estimates based on FEMA 386-2 (August 2001)
- The valuation of general building stock and loss estimates was based on custom inventory for the municipality.  
High = Total hazard priority risk ranking score of 31 and above  
Medium = Total hazard priority risk ranking of 20-30+  
Low = Total hazard risk ranking below 20
- Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- Loss estimates for the flood and earthquake hazards represent both structure and contents.
- The HAZUS-MH earthquake model results are reported by Census Tract.

### National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Borough of Florham Park.

**Table 9.12-4. NFIP Summary**

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Borough of Florham Park	77	3	\$3,795.37	0	0	26

Source: FEMA Region 2, 2014

- Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of 9/30/2014. Please note the total number of repetitive loss properties includes the severe repetitive loss properties. The number of claims represents claims closed by 9/30/14.
- Total building and content losses from the claims file provided by FEMA Region 2.



- (3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.
- Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.
- A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.
- Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude.

### Critical Facilities

The Borough of Florham Park does not have any critical facilities located in the 1-or 0.2-percent annual chance flood zones.

### Other Vulnerabilities Identified

According to the 2015 preliminary FEMA Flood Insurance Study (FIS) for Morris County, flooding in the Borough of Florham Park is primarily caused by the Passaic River. Flooding of the River occurs as a result of heavy rainfall. The soils of the Borough have low permeability which makes the Borough subject to frequent flooding and ponding of surface water during periods of heavy rain (FEMA FIS 2015).

#### 9.12.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

### Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Borough of Florham Park.

**Table 9.12-5. Planning and Regulatory Tools**

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No)	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
<b>Planning Capability</b>				
Master/Comprehensive Plan	Yes 2005	Local	Borough Planner	Re-examination done in 2005. Building addendum added in 2011
Capital Improvements Plan	Yes	Local	Borough Engineer, CFO	2014
Floodplain Management/Basin Plan	No			
Stormwater Management Plan	Yes 2014	Local	Borough Engineer	Annual updates provided to State
Open Space Plan	Yes 2011	Local	Borough Engineer	Updated after Irene
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	No			



Table 9.12-5. Planning and Regulatory Tools

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No)	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Economic Development Plan	No			
Comprehensive Emergency Management Plan	Yes 2012	Local	OEM	Stand-alone plan
Emergency Response Plan	Yes 2012	Local	OEM	Part of the Emergency Management Plan
Post-Disaster Recovery Plan	No			
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:	N/A			
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local		State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.) Chapter 212
Zoning Ordinance	Yes	Local	Zoning Officer	Chapter 250
Subdivision Ordinance	Yes	Local	Zoning	Chapter 212
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Construction Code Official	Chapter 215
NFIP: Cumulative Substantial Damages	No			
NFIP: Freeboard	No			
Growth Management Ordinances	No			
Site Plan Review Requirements	Yes	Local	Engineering/Plan ning Board	Chapter 212
Stormwater Management Ordinance	Yes	Local	Engineering	Chapter 213
Municipal Separate Storm Sewer System (MS4)	No	State	NJ DEP	N.J.A.C. 7:14A-25.1
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	No	State	Division of Consumer Affairs	N.J.A.C. 13:45A-29.1
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	N/A			

### Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Borough of Florham Park.



Table 9.12-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	Yes	Consists of several municipal departments
Environmental Board/Commission	Yes	Chairman is T. Trautman appointed by Mayor
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	Yes	Engineering, DPW
Mutual Aid Agreements	Yes	Shared services with surrounding municipalities
<b>Technical/Staffing Capability</b>		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Borough Engineer M. Sgaramella
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Borough Engineer M. Sgaramella Construction Official Steve Jones
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer M. Sgaramella
NFIP Floodplain Administrator	Yes	Borough Engineer M. Sgaramella
Surveyor(s)	No	Contracted out-Smith Surveying, LLC
Personnel skilled or trained in GIS and/or Hazus-MH applications	Yes	Building Department
Scientist familiar with natural hazards	No	
Emergency Manager	Yes	Captain R. Treiber, FP PD
Grant Writer(s)	Yes	Community Services Department
Staff with expertise or training in benefit/cost analysis	Yes	Chief Financial Officer
Professionals trained in conducting damage assessments	Yes	Township Division Operations, Engineering, OEM

### Fiscal Capability

The table below summarizes financial resources available to the Borough of Florham Park.

Table 9.12-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact Fees for homebuyers or developers of new development/homes	Yes
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other Federal or State Funding Programs	Yes, DEP Green Acres, Morris County Open Space,



Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
	Homeland Security Grants, NJDOT, Government Surplus
Open Space Acquisition Funding Programs	NJ DEP, Morris County Open Space
Other	N/A

### Community Classifications

The table below summarizes classifications for community program available to the Borough of Florham Park.

**Table 9.12-8. Community Classifications**

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	TBD	TBD
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	3	
Storm Ready	No		
Firewise	No		
Disaster/Safety Programs in/for Schools	Yes	N/A	Dare Programs and Emergency Action Drills
Organizations with Mitigation Focus (advocacy group, non-government)	No		
Public Education Program/Outreach (through website, social media)	Yes	N/A	Facebook, Twitter, Reverse 911 and Everbridge, School Resource Officer, Local TV station, Private Sector and Fairleigh Dickinson University and College of Saint Elizabeth
Public-Private Partnerships	Yes	N/A	Academia, Brooklake County Club, LEPC stakeholders

*N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.*

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1,000 feet of a creditable fire hydrant and is within five road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule





- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

### Self-Assessment of Capability

The table below provides an approximate measure of Florham Park's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

**Table 9.12-9. Self-Assessment Capability for the Municipality**

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Fiscal Capability	X		
Community Political Capability		X	
Community Resiliency Capability		X	
Capability to Integrate Mitigation into Municipal Processes and Activities.		X	

### National Flood Insurance Program

#### NFIP Floodplain Administrator

Michael Sgaramella, Borough Engineer

#### Flood Vulnerability Summary

The Borough does not maintain lists or inventories of properties that have been damaged by floods. During Sandy or other events, no structures (residential, commercial or industrial) were damaged. The Borough did not make Substantial Damage estimates for the most recent flooding events. There is currently not an interest in mitigation (elevation or acquisition) within the community.

#### Resources

The Borough Engineer is the sole person assuming the responsibilities of municipal floodplain administration. Services and functions currently provided by the FPA includes permit review, inspections, and record keeping. The Borough does not provide any education or outreach to the community regarding flood hazards/risk or flood risk reduction. The FPA indicated that there are currently no barriers to running an effective floodplain management program and that he would consider attending continuing education and certification training on floodplain management if offered.

#### Compliance History

The Borough of Florham Park is in good standing with the NFIP. The FPA indicated that the Borough has never had a compliance audit conducted.





### **Regulatory**

The Borough's floodplain management regulations/ordinances meet the FEMA and state minimum requirements. The FPA indicated that in addition to the engineering department, the planning board and board of adjustment considers efforts to reduce flood risk during application review.

### **Community Rating System**

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The Borough of Florham Park does not participate in the Community Rating System (CRS) program.

### **Integration of Hazard Mitigation into Existing and Future Planning Mechanisms**

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For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

### **Planning**

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The Florham Park Open Space and Recreation Plan (2011) aims to expand and enhance the existing parks and recreation system, while preserving and protecting the water quality and quantity of the Borough. The Plan details the benefits of preserved open space for stormwater management and flood control; by 2011, the Borough had preserved 13.28 acres of open space for the purpose of flood protection and conserving natural resources. The Plan also recommended investigating the River-Friendly Business Certification program to increase awareness of the impact local businesses have on the Whippany and Passaic River Watersheds and evaluating the addition of properties to the Green Acres Recreational and Open Space Inventory (ROSI) and develop a list of properties for acquisition.

### **Regulatory and Enforcement**

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The Borough has multiple ordinances pertaining to the mitigation of hazards. These ordinances include the NFIP Flood Damage Prevention Ordinance, a stormwater management ordinance, ordinances for fire safety, a soil removal ordinance, and a hazardous or toxic substance discharge ordinance.

### **Operational and Administration**

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The Borough has established an Environmental Commission and Mitigation Planning Committee that aid in planning decisions to support the conservation and preservation of the Borough's critical environmental features. Florham Park has implemented maintenance programs in order to reduce risk, and has mutual aid agreements that allow surrounding communities to provide and receive additional support during an emergency event.

### **Fiscal**

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The Township has a multitude of fiscal capabilities for funding mitigation actions and projects. The Township has access to Community Development Block Grants and other state and federal funding sources. Local fiscal resources include capital improvements funding and County open space acquisition funding.

### **Education and Outreach**

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The Florham Park Police Department and Office of Emergency Management provide residents with information regarding local events and emergency notifications on the Department and Township website. The Police Department has a Facebook and Twitter page that will also post this information for residents;



residents without an account for either service can text “follow florhamalert” to 40404 and receive emergency notifications on their cell phone.

### **9.12.6 Mitigation Strategy and Prioritization**

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This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

#### **Past Mitigation Initiative Status**

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The following table indicates progress on the community’s mitigation strategy identified in the 2010 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.12-10. Past Mitigation Initiative Status

2010 Mitigation Action	Lead	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP, Discontinue)	Describe Next Step
<b>Florham Park 1:</b> Elevation of Police Headquarters to mitigate flooding at 111 Ridgedale Avenue.	Community Services Director	No Progress	No funding for this project, fiscal limitations	Discontinue	The Boro has made strides to mitigated this hazard through surface grading, water retention area cleaning and maintenance, dredging, corrections made to gutters and leaders of building.
<b>Florham Park 2:</b> Elevate County Road 510 Columbia Turnpike at Black Brook.	Twp Engineer	No Progress	No jurisdiction	Discontinue	The Boro has no jurisdiction for this roadway. The Boro will support the County regarding mitigation measures made to this roadway.
<b>Florham Park 3:</b> Upgrade backup power (generator) for Ridgedale Middle School (shelter).	Florham Park Board of Education	No Progress	No funding for this project has been obtained. Estimated costs for the generator were obtained.	Include in 2015 HMP	Secure funding
<b>Florham Park 4:</b> Retrofit POD at Municipal Recreation building at 111 Ridgedale for flooding and backup power (generator).	Community Service Director	No Progress	This area flooded and the Borough does not want to invest money into this location	Include in 2015 HMP	Explore flood mitigation actions for this structure to include temporary flood wall. Research cost and benefit cost analysis.
<b>Florham Park 5:</b> Develop all-hazards public education and outreach program for hazard mitigation and preparedness	Local and County OEM	Complete	Website, schools, flyers, TV	Discontinue	This is an ongoing administrative function of OEM that will continue.



### Proposed Hazard Mitigation Initiatives for the Plan Update

The Borough of Florham Park participated in a mitigation action workshop in January 2015 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013).

Table 9.12-11 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Florham Park would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, fourteen evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.12-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.12-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
FP-1 (old Florham Park 3)	Upgrade backup power (generator) for Ridgedale Middle School (shelter).	Existing	All	G-3, G-4	Florham Park Board of Education, OEM	High	High	HMGP, Homeland Security Grants	Short Term DOF	High	SIP	PP
FP-2 (old Florham Park 4)	Retrofit POD at Municipal Recreation building at 111 Ridgedale for flooding and backup power (generator).	Existing	Flooding	G-4	Community Service Director	Medium	Medium	HMA Grants, Municipal Budget	Short Term DOF	Medium	SIP	PP
FP-3	Obtain information about becoming a certified Firewise Community	New and Existing	Wildfire	G-1	Fire Department, OEM	Medium	Low	Municipal budget	Long Term DOF	Medium	LPR	PR
FP-4	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	N/A	All Hazards	G-1, G-3	Municipality with support from County, NJOEM, FEMA and surrounding communities	Medium	Low	Municipal Budget	Short Term	Medium	LPR	PR

**Notes:**

Not all acronyms and abbreviations defined below are included in the table.

\*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

**Acronyms and Abbreviations:**

CAV Community Assistance Visit

CRS Community Rating System

DPW Department of Public Works

FEMA Federal Emergency Management Agency

FPA Floodplain Administrator

HMA Hazard Mitigation Assistance

N/A Not applicable

NFIP National Flood Insurance Program

NJDEP New Jersey Department of Environmental Protection

NJOEM New Jersey Office of Emergency Management

OEM Office of Emergency Management

**Potential FEMA HMA Funding Sources:**

FMA Flood Mitigation Assistance Grant Program

HMGP Hazard Mitigation Grant Program

PDM Pre-Disaster Mitigation Grant Program

RFC Repetitive Flood Claims Grant Program

SRL Severe Repetitive Loss Grant Program

DOF

Depending on funding

**Timeline:**

Short 1 to 5 years

Long Term 5 years or greater

OG On-going program





Costs:

Where actual project costs have been reasonably estimated:

Low	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where actual project costs cannot reasonably be established at this time:

Low	Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
Medium	Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High	Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP)-These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- Preventative Measures (PR)-Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP)-These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI)-Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR)-Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP)-Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES)-Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low=	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low	Long-term benefits of the project are difficult to quantify in the short term.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
High	Project will have an immediate impact on the reduction of risk exposure to life and property.



Table 9.12-12. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Community Objectives	Total	High/Medium/Low
FP-1 (old Florham Park 3)	Upgrade backup power (generator) for Ridgedale Middle School (shelter).	1	1	1	1	1	1	0	0	1	1	1	1	1	1	12	High
FP-2 (old Florham Park 4)	Retrofit POD at Municipal Recreation building at 111 Ridgedale for flooding and backup power (generator).	0	1	1	1	1	1	0	0	0	1	0	0	1	1	8	Medium
FP-3	Obtain information about becoming a certified Firewise Community	1	1	1	1	1	1	0	1	1	0	0	0	1	1	10	Medium
FP-4	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	1	1	1	1	1	1	0	0	0	1	1	0	1	1	10	Medium

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.





### **9.12.7 Future Needs To Better Understand Risk/Vulnerability**

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None at this time.

### **9.12.8 Hazard Area Extent and Location**

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Hazard area extent and location maps have been generated for the Borough of Florham Park that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Borough of Florham Park has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

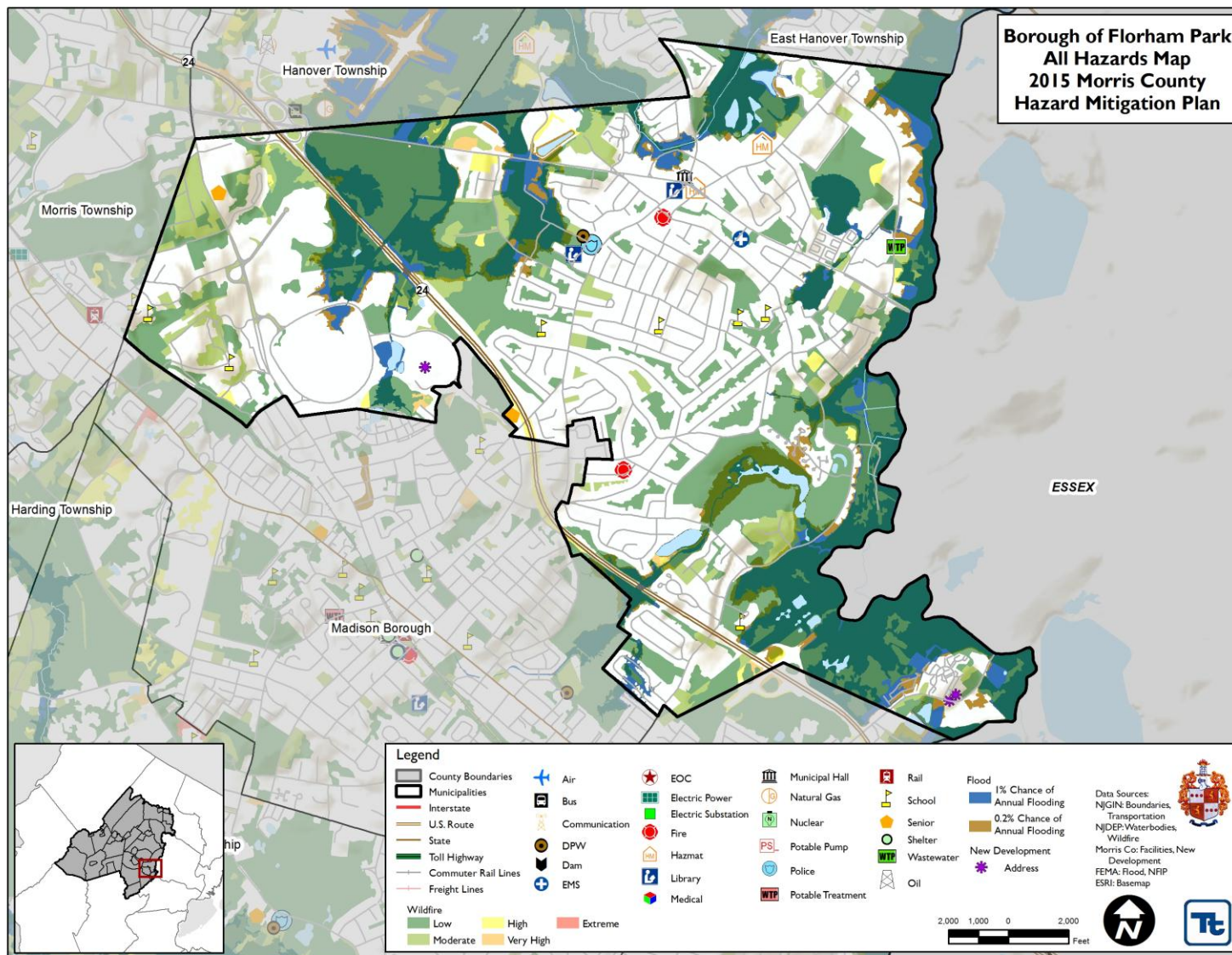
### **9.12.9 Additional Comments**

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None at this time.



Figure 9.12-1. Borough of Florham Park Hazard Area Extent and Location Map 1





**Figure 9.12-2. Borough of Florham Park Hazard Area Extent and Location Map 2**







Action Number:

FP-1

Mitigation Action/Initiative:

Upgrade backup power (generator) for Ridgedale Middle School

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Loss of power to critical facility in the Borough
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Upgrade backup power at Ridgedale Middle School
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Upgrade backup power (generator) for Ridgedale Middle School (shelter).
Action/Project Category	SIP
Goals/Objectives Met	3, 4
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible/Lead Agency/Department	Florham Park Board of Education, OEM
Local Planning Mechanism	Emergency Management, Capital Improvement
Potential Funding Sources	HMGP, Homeland Security Grants
Timeline for Completion	Short Term/DOF
Reporting on Progress (Do not complete – this will be used for the 2020 Update)	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

\* Refer to results of Prioritization (page 2)



Action Number:

FP-1

Mitigation Action/Initiative:

Upgrade backup power (generator) for Ridgedale Middle School

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Allow for operations to continue in the event of a power outage
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	1	Once funding is received, project will be completed in less than five years
Local Champion	1	
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



Action Number:

FP-2

Mitigation Action/Initiative:

Retrofit POD at Municipal Recreation

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flood
<b>Specific problem being mitigated:</b>	Flooding may affect the distribution of medication or goods in time of emergencies and disasters
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1. Retrofit building for flooding and backup power
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Retrofit POD at Municipal Recreation building at 111 Ridgedale for flooding and backup power (generator).
<b>Action/Project Category</b>	SIP
<b>Goals/Objectives Met</b>	4
<b>Applies to existing and/or new development; or not applicable</b>	Existing
<b>Benefits (losses avoided)</b>	Medium
<b>Estimated Cost</b>	Medium
<b>Priority*</b>	Medium
Plan for Implementation	
<b>Responsible/Lead Agency/Department</b>	Community Service Director
<b>Local Planning Mechanism</b>	Emergency Management, Capital Improvement
<b>Potential Funding Sources</b>	HMGP, Homeland Security Grants
<b>Timeline for Completion</b>	Short Term/DOF
Reporting on Progress ( <i>Do not complete – this will be used for the 2020 Update</i> )	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:

\* Refer to results of Prioritization (page 2)



Action Number:

FP-2

Mitigation Action/Initiative:

Retrofit POD at Municipal Recreation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	
Cost-Effectiveness	1	Reduce the cost of flood damage repairs
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	
Local Champion	1	
Other Community Objectives	1	
Total	8	
Priority (High/Med/Low)	Medium	